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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,982	01/14/2004	Amitkumar Dharia	RECS.01US	4272
29946	7590	02/03/2006	EXAMINER	
TIM L. BURGESS, P.C. 402 OAK LANE HOUSTON, TX 77024			ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,982

Applicant(s)

DHARIA ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 33-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The application 10/757,982 has been transferred from the primary examiner Nathan Nutter to other examiner within the same art unit. The new examiner is Olga Asinovsky (telephone 571-272-1066.)

Election/Restrictions

1. Applicant's election of Group I, claims 1-32 in the reply filed on 12/08/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

2. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 1, line 5, component 2), the phrase "a long chain branched a linear homopolymer" is not clear and confusing. It should be a long chain branched linear homopolymer or linear copolymer of C2-C10 alpha-olefin.

In Claim 1, line 7, component b), a phrase "a minor amount by weight" is indefinite, because it is not known whether it means 0.1 part or less than 50 parts by weight.

In Claim 1, line 9, component c), the phrase "free radical generating agent present in an amount sufficient to promote an increase in melt strength of the composition over that of

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the melt strength of the linear homopolymer or copolymer of C2-C10 alpha-olefin alone and insufficient to substantially degrade the alpha-olefin polymer" is indefinite in the term of an "amount sufficient", and it is not clear how any free radical effects on a melt strength of the composition.

3. Claim 8 recites the limitation "a combination of an azo compound and an organic peroxide" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim 8. Claim 8 is depending on claim 5. Claim 5 discloses only one azoalkane. Claim 8 should be depended on claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 5, 13-17 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnston et al 6,323,285.

The claimed invention is a thermoplastic olefin composition comprising: a)1) linear polyolefin of C2-C10 alpha-olefin, a)2)a long chain branched linear polyolefin of C2-C10 alpha-olefin (co)polymer, b) a cross-linkable elastomer; and c) a thermally decomposing free radical generating agent, wherein the composition is formed by melt blending the

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components. The phrase "long chain branched" polyolefin is within the scope of grafted=functionalized polyolefin. Support for that is in the present specification at page 10.

Johnston discloses a homogeneous linear or substantially linear ethylene/alpha-olefin interpolymer backbone (A); and an ethylene homopolymer or an ethylene/alpha-olefin interpolymer, which is appended from the interpolymer backbone (B), column 3, and lines 11-16. The homogeneous polyethylene can be used as component (A), column 6, lines 63-64. The branched polymer (B) is a long chain branch ethylene homopolymer or an ethylene/alpha-olefin copolymer, column 5, lines 58-60; column 8, lines 57-62; column 9, lines 48-50 and column 11, lines 55-60. The polymer backbone (A) and a long chain branch (B) can independently be present in the composition. The component (A) is readable in applicant' claimed a)1). The component (B) is readable in applicant' claimed a)2). Ethylene/alpha-olefin/diene terpolymer can be present as elastomeric polymers, column 6, lines 28-30. The additional polymer such as EPDM elastomer is readable for being a cross-linkable elastomer b) in the present claims. The term "cross-linkable" elastomer is inherent for being a cross-linked for elastomer by melt-blending process in the presence of a free radical initiator. The composition is prepared by mixing the components at 145 degree in the presence of dicumyl peroxide, column 21, lines 38-42 and column 14, line 25. Free radical initiator can include azo-containing compound, column 13, lines 60-64, for the present claims 2 and 5. In addition, a backbone polymer or a branch polymer can be functionalized by grafting of a polar moiety such as maleic anhydride, column 45-62 and column 16, line 6. The grafted

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backbone polymer or branch polymer is also readable for being a long chain branched linear homo- or copolymer of C2-C10 alpha-olefin in a)2) in the present claims. The heteromorphic polymer composition is used for producing a variety of the applications, column 18, lines 58-67 and column 16, lines 63-65, for the present claim 21.

The invention in the present claims is fully anticipated by the disclosure of the Johnston reference.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-4, 6-12, 18-20 22-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston et al U.S. Patent 6,323,285 as applied to claim 1-2, 5, 13-17 and 21 above, and further in view of Kim et al U.S. Patent 6,921,792.

8. Johnston does not disclose a polypropylene homopolymer and azobisisobutyronitrile (AIBN) free radical initiator.

Kim discloses a chemically modified polyolefin elastomer composition comprising homo polypropylene, column 3, lines 19, 37 and 53. Free radical initiator includes azobisisobutyronitrile (AIBN) initiator.

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It would have been obvious to one of ordinary skill in the art to substitute the homogeneous polyethylene as a component (A) in Johnston's invention with a homo polypropylene in Kim invention because both polymers are linear homopolymers and they work within the same expectation for obtaining the adequate result, and said both homopolymers are readable in the present claim 1 for a)1) component. Also, Johnston discloses an azo-containing compound as a free radical initiator, column 13, line 63. It is a prima facie case of obviousness is to consider that said azo-containing compound in Johnston invention is azobisisobutyronitrile (AIBN) initiator in Kim invention as a variant of a broad term azo-containing compound in Johnston invention.

There is no applicants' information disclosure statement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.A.

January 30, 2006

Olga Asinovsky
Examiner
Art Unit 1711


James J. Seidleck
Supervisory Patent Examiner
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